CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISO BAY REGION

ORDER NO. 81-24

NPDES NO. CA0028622

WASTE DISCHARGE REQUIREMENTS FOR:

UNION CARBIDE CORPORATION - SOLVENT
STORAGE TERMINAL
RICHMOND, CONTRA COSTA COUNTY

The California Regional Water Quality Control Board, San Francisco Bay Region, (hereinafter called the Board), finds that:

1. Union Carbide Corporation, Solvent Storage Terminal, Richmond, hereinafter called the discharger, submitted a report of waste discharge (NPDES Short Form C) dated December 5, 1979.

2. The terminal receives, stores, and distributes solvents and organic chemicals. Discharges from the terminal occur in two areas; (1) the tank farm complex, and; (2) the rail tank car siding.

   Tank Farm Complex

   Discharge from the tank farm occurs only during wet weather. Storm runoff from this area is collected by a surface drain located adjacent to the westerly boundary line of the terminal property. The runoff flows through a series of six cellulose filter bags placed in the bottom of said drain, and from there, through a 15-foot long, 4-inch diameter outfall line. A valve located near the end of this line controls the flow and is opened only during wet weather. The maximum rate of surface flow is 10,000 gallons per day. From this point the flow enters the City of Richmond storm-drain system and is eventually discharged into the Santa Fe Channel, Richmond Inner Harbor, and San Francisco Bay.

   Rail Tank Car Siding

   The terminal receives the bulk of its material by rail tank car. As a result, liquid waste discharges may occur from tank cars parked on a railroad siding within the terminal property. The siding is approximately 328-feet long and is situated adjacent and parallel to the terminal's easterly boundary line. Drip pans uniformly installed and welded together under the railroad siding serve to collect drippings from tank cars that are being unloaded. By means of a series of pipe connectors, the accumulated drippings flow from the drip pans into an underground line parallel to the rail car siding, and then into a 500 gallon underground tank designated as Tank "A". From there the material is pumped into a 5,000 gallon above ground tank, designated as Tank "B", for eventual removal to a classified disposal site.

3. The Board, in April 1975, adopted a Water Quality Control Plan for the San Francisco Bay Basin. The Plan contains water quality objectives for the San Francisco Bay and the Santa Fe Channel of Richmond Harbor.

4. The beneficial uses of Santa Fe Channel of Richmond Harbor and contiguous waters are:

   a. Recreation (contact and non-contact)
   b. Fish migration and spawning
   c. Habitat for wildlife and estuarine organisms including some rare and endangered species
   d. Industrial water supply
   e. Esthetic enjoyment
   f. Navigation
   g. Commercial and sport fishing

5. Effluent limitations and toxic effluent standards, established pursuant to Sections 208(b), 301, 304, and 307 of the Federal Water Pollution Control Act and amendments thereto are applicable to the discharge.

6. This project involves the continued operation of a privately-owned facility with negligible or no expansion of use beyond that previously existing. Consequently, this project will not have a significant effect on the environment based upon the exemption provided in Section 15101, Title 14, California Administrative Code.

7. The Board has notified the discharger and interested agencies and persons of its intent to prescribe waste discharge requirements for the discharge and has provided them with an opportunity for a public hearing and an opportunity to submit their written views and recommendations.

8. The Board, in a public meeting, heard and considered all comments pertaining to the discharge.

IT IS HEREBY ORDERED that the discharger in order to meet provisions contained in Division 7 of the California Water Code and regulations adopted thereunder and the provisions of the Federal Water Pollution Control Act, and regulations and guidelines adopted thereunder shall comply with the following:

A. Discharge Prohibitions

1. The discharge of chemicals, solvents, or other material spills, to waters of the State is prohibited. Any spills shall be promptly cleaned up and prevented from mixing with stormwater runoff which is discharged to waters of the State.

B. Effluent Limitation

1. The discharge of stormwater runoff from the plant property shall not have a pH of less than 6.5 nor greater than 8.5.

2. In any representative set of samples, the waste as discharged shall meet the following limit of quality:

Toxicity:	The survival of test organism acceptable to this Regional Board in 96-hour bioassays of the effluent as discharged shall achieve a median of 90% survival for three consecutive samples and a 90 percentile value of not less than 70% survival for ten (10) consecutive samples.

C. Receiving Water Limitations

1. The discharge of waste shall not cause the following conditions to exist in waters of the State at any place:

   a. Floating, suspended, or deposited macroscopic particulate matter or foam;

   b. Alteration of turbidity or apparent color beyond present natural background levels;

   c. Visible, floating, suspended, or deposited oil, or other products of petroleum origin;

   d. Toxic or other deleterious substances to be present in concentrations or quantities which will cause deleterious effects on aquatic biota, wildlife, or waterfowl, or which render any of these unfit for human consumption either at levels created in the receiving waters or as a result of biological concentration.

2. The discharge of waste shall not cause the following limits to be exceeded in waters of the State in any place within one foot of the water surface:

a.	Dissolved Oxygen	5.0 mg/l minimum - annual median not less than 80% saturation. When natural factors cause lesser concentration than specified above, then discharge shall not cause further reduction in the concentration of dissolved oxygen;
b.	Dissolved Sulfide	0.1 mg/l maximum;
c.	pH	Variation from natural ambient pH by more than 0.2 pH units;
d.	Un-ionized Ammonia as N	0.025 mg/l annual median 0.4 mg/l maximum.

D. Provisions

1. Neither the treatment nor the discharge of pollutants shall create a nuisance as defined in the California Water Code.

2. The discharger shall comply with all Sections of this Order immediately upon adoption except as provided in Section C.3 below.

3. The discharger shall install such protective alarm devices and associated safety equipment as may be necessary to provide positive assurance that the terminal operation will not result in solvent or chemical leaks or spills. A report on this acceptable to the Executive Officer shall be submitted no later than July 1, 1981.

4. The discharger shall comply with the Self-Monitoring and Reporting Program as ordered by the Executive Officer.

   The discharger shall comply with all items of the attached "Standard Provisions and Reporting Requirements", dated April 1977, except A.5, A.12, B.1, B.5.

5. This Order expires May 20, 1986. The discharger must file a Report of Waste Discharge in accordance with Title 23, Chapter 3, Subchapter 9 of the California Administrative Code not later than 180 days in advance of such expiration date as application for issuance of new waste discharge requirements.

6. This Order shall serve as a National Pollutant Discharge Elimination System permit pursuant to Section 402 of the Federal Water Pollution Control Act or amendments thereto, and shall become effective ten (10) days after date of its adoption provided the Regional Administrator, Environmental Protection Agency, has no objection. If the Regional Administrator objects to its issuance, the permit shall not become effective until such objection is withdrawn.

I, Fred H. Dierker, Executive Officer, do hereby certify the foregoing is a full, true, and correct copy of an Order adopted by the California Regional Water Quality Control Board, San Francisco Bay Region, on May 20, 1981.

FRED H. DIERKER
Executive Officer

Attachments:
Standard Provisions & Reporting
Requirements - April 1977
Self-Monitoring Program

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM
FOR

Union Carbide Corporation

Solvent Storage Terminal

Richmond, Contra Costa County

NPDES NO. CA 0028622

ORDER NO. 81-24

CALIFORNIA REGIONAL WATER QUALITY CONTROL BOARD
SAN FRANCISCO BAY REGION

SELF-MONITORING PROGRAM

A. GENERAL

Reporting responsibilities of waste dischargers are specified in Sections 13225(a), 13267(b), 13268, 13383, and 13387(b) of the California Water Code and this Regional Board's Resolution No. 73-16.

The principal purposes of a Self-Monitoring Program by a waste discharge, are: (1) to document compliance with waste discharge requirements and prohibitions established by this Regional Board, (2) to facilitate self-policing by the waste discharger in the prevention and abatement of pollution arising from waste discharge, (3) to develop or assist in the development of effluent or other limitations, discharge prohibitions, national standards of performance, pretreatment and toxicity standards, and other standards, and (4) to prepare water and wastewater quality inventories.

B. SAMPLING AND ANALYTICAL METHODS

Sample collection, storage, and analyses shall be performed according to the latest edition of Standard Methods for the Examination of Water and Wastewater prepared and published jointly by the American Public Health Association, American Water Works Association, and Water Pollution Control Federation, or other methods approved and specified by the Executive Officer of this Regional Board. (See APPENDIX E.)

Water and waste analyses shall be performed by a laboratory approved for these analyses by the State Department of Health or a laboratory approved by the Executive Officer. The director of the laboratory whose name appears on the certification shall supervise all analytical work in his laboratory and shall sign all reports of such work submitted to the Regional Board.

All monitoring instruments and equipment shall be properly calibrated and maintained to ensure accuracy of measurements.

C. DEFINITION OF TERMS

1. A grab sample is defined as an individual sample collected in fewer than 15 minutes.

2. Standard Observations

   a. Receiving Water

      (1) Floating and suspended materials of waste origin (to include oil, grease, algae, and other macroscopic particulate matter): presence or absence, source, and size of affected area.

(2) Discoloration and turbidity: description of color, source, and size of affected area.

(3) Odor: presence or absence, characterization, source, and distance of travel.

(4) Evidence of beneficial water use: presence of water-associated wildlife, fishermen, and other recreational activities in the vicinity of the sampling stations.

b. Waste Effluent

(1) Floating and suspended material of waste origin (to include oil, grease, algae, and other macroscopic particulate matter): presence or absence.

(2) Odor: presence or absence, characterization, source, distance of travel.

D. SCHEDULE OF SAMPLING, ANALYSES, AND OBSERVATIONS

The discharger is required to perform observations, sampling, and analyses according to the schedule in Table I with the conditions that grab samples of effluent shall be collected during periods of maximum peak flows, unless otherwise stipulated.

E. RECORDS TO BE MAINTAINED

1. Written reports, calibration and maintenance records, and other records shall be maintained at the plant and shall be retained for a minimum of three years. This period of retention shall be extended during the course of any unresolved litigation regarding this discharge or when requested by the Regional Board or Regional Administrator of the U. S. Environmental Protection Agency, Region IX. Such records shall show the following for each sample:

a. Identity of sampling and observation stations by number.

b. Date and time of sampling and/or observations.

c. Date and time that analyses are started and completed, and name of personnel performing the analyses.

d. Complete procedure used, including method of preserving sample and identity and volumes of reagents used. A reference to specific section of Standard Methods is satisfactory.

e. Calculations of results.

f. Results of analyses and/or observations.

2. A tabulation shall be maintained showing the total waste flow or volume for each day.

3. A tabulation relative to bypassing and accidental waste spills shall be maintained showing information items listed in Sections F-1 and F-2 for each occurrence.

F. REPORTS TO BE FILED WITH THE REGIONAL BOARD

1. Spill Reports

A report shall be made of any spill of oil or other hazardous material. Spills shall be reported to this Regional Board and the U. S. Coast Guard by telephone immediately after occurrence. A written report shall be filed with the Regional Board within five (5) days and shall contain information relative to:

a. nature of waste or pollutant,

b. quantity involved,

c. cause of spilling,

d. estimated size of affected area,

e. nature of effects (i.e., fishkill, discoloration of receiving water, etc.),

f. corrective measures that have been taken, or planned, and a schedule of these activities, and

g. persons notified.

2. Bypass Reports

Bypass reporting shall be an integral part of regular monitoring program reporting, and a report on bypassing of untreated waste or bypassing of any treatment unit(s) shall be made which will include cause, time, and date, duration and estimated volume of waste bypassed, method used in estimating volume, and persons notified, for planned and/or unplanned bypass.

The discharger shall file a written technical report at least 15 days prior to advertising for bid on any construction project which would cause or aggravate the discharge of waste in violation of requirements; said report shall describe the nature, costs, and scheduling of all action necessary to preclude such discharge.

In the event the discharger is unable to comply with the conditions of the waste discharge requirements and prohibitions due to:

(a) maintenance work, power failures, or breakdown of waste treatment equipment, or

(b) accidents caused by human error or negligence, or

(c) other causes such as acts of nature,

the discharger shall notify the Regional Board Office by telephone as soon as he or his agents have knowledge of the incident and confirm this notification in writing within two weeks of the telephone notification. The written report shall include pertinent information explaining reasons for the noncompliance and shall indicate what steps were taken to prevent the problem from recurring.

In addition, if the noncompliance caused by items (a), (b), or (c) above is with respect to any of the effluent limits, the waste discharger shall promptly accelerate his monitoring program to analyze the discharge at least once every day for those constituents which have been violated. Such daily analyses shall continue until such time as the effluent limits have been attained, or until such time as the Executive Officer determines to be appropriate. The results of such monitoring shall be included in the regular Self-Monitoring Report.

3. Self-Monitoring Reports

Written reports shall be filed regularly for each calendar quarter in which discharge occurs (unless specified otherwise) by the fifteenth day after each quarter. The reports shall include:

a. Letter of Transmittal:

A letter transmitting self-monitoring reports should accompany each report. Such a letter shall include a discussion of requirement violations found during the past month and actions taken or planned for correcting violations, such as plant operation modifications and/or plant facilities expansion. If the discharger has previously submitted a detailed time schedule for correcting requirement violations, a reference to the correspondence transmitting such schedule will be satisfactory. Monitoring reports and the letter transmitting reports shall be signed by a principal executive officer at the level of vice-president or his duly authorized representative if such representative is responsible for the overall operation of the facility from which the discharge originates.

The letter shall contain a statement by the official, under penalty of perjury, that to the best of the signer's knowledge the report is true and correct.

b. Compliance Evaluation Summary

Each report shall be accompanied by a compliance evaluation summary sheet prepared by the discharger. The report format will be prepared using the example shown in APPENDIX A. The discharger will prepare the format using those parameters and requirement limits for receiving water and effluent constituents specified in his permit.

c. Map or Aerial Photograph

A map or aerial photograph shall accompany the report showing sampling and observation station locations.

d. Results of Analyses and Observations

Tabulations of the results from each required analysis specified in Section G by date, time, type of sample, and station, signed by the laboratory director. The report format will be prepared using the examples shown in APPENDIX B.

e. Effluent Data Summary

Summary tabulation of the data to include for flow rate and each constituent total number of analyses, maximum, minimum, and average values for each period.

f. List of Approved Analyses

(1) Listing of analyses for which the discharger is approved by the State Department of Health.

(2) List of analyses performed for the discharger by another approved laboratory (and copies of reports signed by the laboratory director of that laboratory shall also be submitted as part of the report).

4. Annual Reporting

By January 30 of each year, the discharger shall submit an annual report to the Regional Board covering the previous calendar year. The report shall contain a tabular summary of the monitoring data obtained during the previous year. In addition, the report shall contain a comprehensive discussion of the compliance record and the corrective actions taken or planned which may be needed to bring the discharger into full compliance with the waste discharge requirements. The report format will be prepared by the discharger using the examples shown in APPENDIX D and should be maintained and submitted with each regular self-monitoring report.

G. MONITORING SPECIFICATIONS

1. Description of Sampling Stations

a. Effluent

Station	Description
E-001	At any point in the terminal's outfall or at terminal's final point of discharge into the City of Richmond's storm drain system.

b. Receiving Waters

Station	Description
C-R	At a point in the drainage ditch immediately upstream from the discharger's property.
C-1	At a point in the drainage ditch immediately downstream from the discharger's property.

2. Schedule of Sampling and Analysis

The schedule of sampling and analysis shall be that given as Table I.

3. Miscellaneous Reporting and Instructions

a. Prior to each discharge, a grab sample shall be taken at Station E-001 and analyzed for pH.

If compliance is shown with Effluent Limitation B.1 (pH between 6.5 and 8.5), remaining stormwater may be discharged provided that a second grab sample be taken immediately prior to cessation of disharge and analyzed for pH. Also, during the first discharge after September 1 of each year, a composite sample shall be taken at Station E-001 and analyzed for toxicity. The composite shall consist of 2 equal-volume grab samples, one taken at the beginning of discharge and the second prior to cessation of discharge. Toxicity monitoring will be waived following two consecutive years of documented compliance with the toxicity limitation of the permit.

I, Fred H. Dierker, Executive Officer, hereby certify that the foregoing Self-Monitoring Program:

1. Has been developed in accordance with the procedure set forth in this Regional Board's Resolution No. 73-16 in order to obtain data and document compliance with waste discharge requirements established in Regional Board Order No. 81-24.

2. Is effective on the date shown below.

3. May be reviewed at any time subsequent to the effective date upon written notice from the Executive Officer or request from the discharger, and revisions will be ordered by the Executive Officer.

FRED H. DIERKER
Executive Officer

Attachment:
Table I

Effective Date_____

TABLE 1

SCHEDULE FOR SAMPLING, MEASUREMENTS, AND ANALYSES

Order No. 81-24

SAMPLING STATIONS	E-001		C-R & C-1					
TYPE OF SAMPLES	(1) G	O	O					
Flow Rate (gals/day)	(2) E							
pH (units)	(1) E							
Toxicity, % Survival in (undiluted) Waste as discharged	(1) A							
Standard Observations		E						
Observe for Discoloration			E					

LEGEND FOR TABLE

TYPE OF SAMPLE

G = grab
O = observation

TYPE OF STATION

E = waste effluent
C = receiving water

SAMPLING FREQUENCY

E = Each occurrence of discharge of stormwater to the drainage ditch tributary to Santa Fe Channel.
A = Annually during first discharge of the year.

NOTE:

(1) See Miscellaneous Reporting and Instructions.

(2) Estimate flow in gallons per day.